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Appln. Serial No. 10/032,781

AMENDMENT

Docket No. KFHI-101

REMARKS

Claims 1-37 are pending herein. By this Amendment, Claims 1-2 and 23 are amended, and new Claim 37 is added. Support for the claim amendments and new claim is found in the specification at, *inter alia*, paragraphs [0007], [0018]-[0019], [0021], and [0024]. No new matter is added by this Amendment.

I. RESTRICTION REQUIREMENT

Applicants respectfully maintain that the restriction requirement is improper. Pursuant to MPEP 806.05(e), a process and an apparatus for its practice can be shown to be distinct if (a) the process as claimed can be practiced by a materially different apparatus or (b) the apparatus as claimed can be used to practice a materially different process. “The burden is on the examiner to provide reasonable examples that recite material differences.” See MPEP 806.05(e).

The Examiner asserts that the apparatus recited in non-elected Claims 27-36 can be used for “heating non-dairy foods”. However, the apparatus as claimed recites a mixing pipe for transporting a boiling aqueous sugar composition from a first plate and frame heat exchanger to a second plate and frame heat exchanger. The mixing pipe has a dairy component injection port for receiving a dairy component which is mixed with the boiling sugar composition in the mixing pipe. There is no reasoning or explanation given in the Office Action as to how the claimed apparatus with the dairy injection port could be used to make a non-dairy confection. Accordingly, the requirements for restriction pursuant to MPEP 806.05(e) have not been met. Reconsideration and withdrawal of the restriction requirement between Groups I and II are respectfully requested.

II. FORMAL MATTERS

Claim 14 was rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enabling requirement. This rejection is respectfully traversed.

Claim 14 recites that the dairy component comprises cocoa. The use of the open-ended term “comprising” means that the dairy component may contain cocoa as well as other ingredients. By definition, the “dairy” component contains a protein-containing ingredient. The use of the term “comprising” is proper and the claimed dairy component is clearly not limited to cocoa. One of ordinary skill in the art would easily have been able to make the dairy component of Claim 14 in view of the specification without undue experimentation. Accordingly, Claim 14 is fully enabled by the specification.

In addition, the definition of “cocoa” given on page 23 of the specification is proper. A word is capable of more than one precise definition. As shown on the attached page from *The American Heritage Dictionary*, cocoa is defined as: (1) a powder made from cacao seeds and (2) a beverage made by combining this powder with water or milk and sugar. Thus, cocoa may properly refer to both a powder and a beverage. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 1-26 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. This rejection is respectfully traversed.

The use of the word “its” in Claims 1 and 23 is grammatically proper and is not confusing. The first use of “its” in Claims 1 and 23 clearly refers to the aqueous sugar composition. The second use of the word “its” in Claim 1 and the use of the word “it” in Claim 23 refer to the dairy-based mass. Nevertheless for clarity, Claims 1 and 23 are amended to delete the word “its” and Claim 23 is amended to delete the word “it”. Thus, the scope of the pending claims would be reasonably ascertainable to one of ordinary skill in the art when read in light of the specification, thereby satisfying the requirements of 35

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U.S.C. 112, second paragraph. Reconsideration and withdrawal of the rejection are respectfully requested.

III. REJECTIONS UNDER 35 U.S.C. 102(b)

Claims 1, 3, 7, 12, 14-15, and 18-22 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,107,347 (Burley). This rejection is respectfully traversed.

Burley discloses a method of manufacturing milk chocolate comprising heating an aqueous sugar solution. The heated solution is then poured into milk powder in a heated melangeur and processed. The method of Burley is a batch process using mechanical mixing. Burley does not disclose the continuous production of a dairy-based confection or the use of static mixing. Burley also does not disclose heating a dairy-based mass above the initial boiling point. Nevertheless, to advance prosecution, Claim 1 is amended to clarify that two heat exchangers are used. Burley does not disclose heating an aqueous sugar composition in a first heat exchanger or heating a dairy-based mass in a second heat exchanger. Burley does not disclose each and every element of the claimed process and therefore does not anticipate Claims 1, 3, 7, 12, 14-15, and 18-22. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 1-3, 7, 9, 11-12, 14-15, and 17-22 were rejected under 35 U.S.C. 102(b) as being anticipated by Alikonis (Candy Technology). This rejection is respectfully traversed.

Alikonis discloses processes for making caramels and chewy candies in a kettle. The method of Alikonis is a batch process using agitation. Alikonis does not disclose the continuous production of a dairy-based confection or the use of static mixing. Like Burley, Alikonis does not disclose heating a dairy-based mass above the initial boiling

point. Nevertheless, to advance prosecution, Claim 1 is amended to clarify that two heat exchangers are used. Alikonis does not disclose heating an aqueous sugar composition in a first heat exchanger or heating a dairy-based mass in a second heat exchanger. Alikonis does not disclose each and every element of the claimed process and therefore does not anticipate Claims 1-3, 7, 9, 11-12, 14-15, and 17-22. Reconsideration and withdrawal of the rejection are respectfully requested.

IV. REJECTIONS UNDER 35 U.S.C. 103(a)

Claim 16 was rejected under 35 U.S.C. 103(a) as being unpatentable over Alikonis. This rejection is respectfully traversed.

Alikonis does not teach or suggest that a dairy component is injected into a boiling aqueous solution at a temperature of from about 36°F to about 60°F. The Examiner's assertion that Alikonis uses butter and that butter was "commonly stored at refrigerated temperatures such as these" is not pertinent. There is simply no teaching or suggestion in Alikonis that butter was added at any specific temperature. Nevertheless, as mentioned above, Alikonis does not teach or suggest heating a dairy-based mass above the initial boiling point or any use of two heat exchangers as claimed, thereby rendering the rejection moot. One of ordinary skill in the art would not have been motivated to practice the process of Claim 16 in view of the teachings of Alikonis. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 4-6, 10, and 23-26 were rejected under 35 U.S.C. 103(a) as being unpatentable over Alikonis in view of Jackson (Sugar Confectionery Manufacture). This rejection is respectfully traversed.

As noted above, Alikonis does not teach or suggest heating a dairy-based mass above the initial boiling point; heating an aqueous sugar composition in a first heat exchanger; or heating a dairy-based mass in a second heat exchanger.

Jackson does not overcome the deficiencies of Alikonis. Jackson discloses the manufacture of high-boiled sweets (i.e., a non-dairy based confection). On page 180, Jackson discloses that plate heat exchangers have been used for confectionary processing. Jackson does not recognize the particular problems involved in making a dairy-based confection. As discussed in paragraphs [0005]-[0006] of the specification, candy masses containing dairy components are temperature sensitive and may cause problems with the burning, denaturing, or precipitating of protein, thereby fouling heat transfer surfaces. In fact, Jackson states that the use of a plate heat exchanger for toffee (a hard candy of brown sugar and butter) is not well established and has difficulties in long-term operation. In addition, Jackson states that caustic cleaning of the plates may be necessary at intervals due to fouling.

In contrast, the present invention solves the problem of fouling and long term use of heat exchangers used in making a dairy-based confection. See, for example, paragraph [0010]. According to the present invention, an aqueous sugar solution is heated to boiling in a first heat exchanger; a dairy component is injected into the boiling sugar-based mass, thereby creating turbulence; and the dairy-based mass is then heated above boiling and cooked in a second heat exchanger. As a result, static mixing is employed which reduces maintenance costs and energy costs for motors, scrapers, and other moving parts.

Jackson does not teach or suggest the use of two separate heat exchangers in the process of forming a dairy-based confection. Jackson also does not teach or suggest admixing a dairy component with the boiling, aqueous sugar solution after the solution leaves the first heat exchanger to form a dairy-based mass and then heating the dairy-

based mass above boiling in the second heat exchanger. Thus, it would not have been obvious for one of ordinary skill in the art to practice the claimed methods in view of the combined teachings of Alikonis and Jackson, even assuming the references were properly combinable. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 8 and 13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Alikonis in view of U.S. Patent No. 3,677,771 (Kolar). This rejection is respectfully traversed.

Alikonis does not teach or suggest heating an aqueous sugar composition to boiling in a first heat exchanger or heating a dairy-based mass above boiling in a second heat exchanger. As acknowledged by the Examiner, Alikonis also does not teach or suggest increasing the solids content of a cooked dairy-based mass by application of vacuum or the claimed protein content of the dairy-based confection.

Kolar does not overcome the deficiencies of Alikonis. Kolar discloses the production of caramel-type confectionary product from a reconstitutable dried condensed milk product made by mixing concentrated fluid dairy whey with a proteinaceous source; adding a partially hydrogenated fat to the mixture; drying the condensed milk provided; and incorporating a sequestering agent to sequester any calcium ions present in the milk product (Abstract).

As pointed out in the Office Action, Kolar discloses vacuum evaporation of fluid sweet dairy whey at col. 7, line 75 - col. 8, line 2. Kolar does not teach or suggest increasing the solids content of a cooked dairy-based mass by the application of vacuum. Further, like Alikonis, Kolar does not teach or suggest heating an aqueous sugar composition to boiling in a first heat exchanger or heating a dairy-based mass above boiling in a second heat exchanger. Thus, it would not have been obvious for one of ordinary skill in the art to practice the claimed methods in view of the combined teachings

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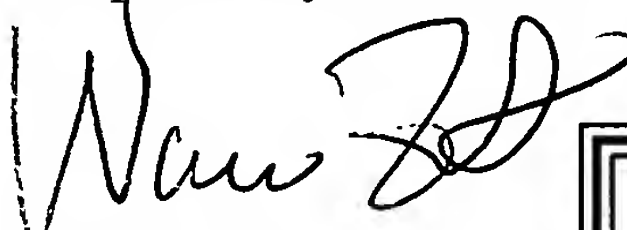
of Alikonis and Kolar. Reconsideration and withdrawal of the rejection are respectfully requested.

V. CONCLUSION

In light of the foregoing remarks, this application is in condition for allowance, and early passage of this case to issue is respectfully requested. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application.

Enclosed is a check for \$86.00 for the additional independent claim fee. Any additional fees should be charged to, or any overpayment in fees should be credited to, Deposit Account No. 501032 (Docket #KFHI-101).

Respectfully submitted,



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Enclosures: Copy of Page 287 from *The American Heritage Dictionary*, Second College Edition
Check for \$86.00

CERTIFICATE OF MAILING

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Date: 3/26/04

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**The
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Dictionary**

COCORU

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